

In the Claims

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A method for detecting an analyte containing ~~or labelled with~~ a haem moiety within a sample, ~~said the~~ method comprising:
- a) contacting ~~said the~~ sample with a one or more magnetic bead beads having immobilised thereon a specific binding partner for ~~said the~~ analyte and allowing the analyte to bind to ~~said the~~ specific binding partner;
 - b) separating the magnetic beads from the sample, ~~and if necessary, labelling the immobilised analyte with a haem containing label;~~
 - c) ~~resuspending the beads and~~ subjecting ~~them~~ the beads to alkaline conditions sufficient to release haem moieties ~~therefrom but not to extract inorganic iron from the beads; and~~
 - d) detecting released haem moieties using a luminol chemiluminescent assay procedure.

2. (Currently Amended) A The method ~~according to~~ of claim 1 wherein ~~in~~ step (c) is conducted within a pH range of from ~~12.5-13.5~~ 12.5 to 13.5.

3. (Currently Amended) A The method ~~according to~~ of claim 1 ~~or claim 2~~ wherein the beads are resuspended in step (c) and step (d) is carried out directly on the bead suspension.

4. (Currently Amended) A ~~The method according to~~ of claim 1 ~~or claim 2~~ wherein the beads are resuspended in step (c); after step (c) “;” the magnetic beads are separated “;” from the suspension; and step (d) is carried out ~~on supernatant remaining~~ the separated suspension.

5. (Currently Amended) A ~~The method according to any one of the preceding claims~~ claim 1 wherein between step (b) and step (c), the magnetic beads are resuspended in a washing solution, and thereafter, separated from the washing solution.

6. (Currently Amended) A ~~The method according to any one of the preceding claims~~ claim 1 wherein the analyte is a spore.

7. (Currently Amended) A ~~The method according to~~ of claim 6 wherein the analyte is a *Bacillus* spore.

8. (Currently Amended) ~~A method according to any one of claims 1 to 5 wherein the analyte is labeled with a haem containing moiety~~ The method of claim 1 wherein in step (c) the alkaline conditions are sufficient to release haem moieties without extracting inorganic iron from the beads.

9. (Cancelled)

10. (Currently Amended) A ~~The method according to any one of the preceding claims~~ claim 1 wherein in step (d) luminol is added to and incubated with the released haem haem moieties ~~and incubated therewith~~, and thereafter, oxidant added in a sufficient amount to generate ~~the~~ a signal.

11. (Currently Amended) A ~~The method according to~~ of claim 10, wherein the amount of oxidant present is sufficient to oxidise all of the luminol.“;”

12. (Currently Amended) A The method according to ~~of~~ claim 10 ~~or 11~~ wherein the oxidant is sodium perborate or hydrogen peroxide.

13. (Currently Amended) A The method according to ~~any one of the preceding claims~~ claim 1 wherein the specific binding partner for the analyte is an antibody or binding fragment thereof.

14. (Currently Amended) A kit for ~~use in a method according to claim 1, said kit~~ detecting an analyte in a sample, wherein the analyte contains a haem moiety or is labelled with a haem moiety, comprising magnetic beads, luminol or functional chemiluminescent derivatives thereof and a working solution having a pH within the range of from ~~12.5-13.5~~ 12.5 to 13.5.

15. (Currently Amended) A The kit according to ~~of~~ claim 14 wherein ~~said~~ the magnetic beads are coated with a specific binding partner for an analyte.

16. (Currently Amended) A The kit according to ~~of~~ claim 15 wherein ~~said~~ the specific binding partner is an antibody.

17. (Currently Amended) A The kit according to ~~any one of claims~~ claim 14 ~~to 16~~, which further comprises an oxidant ~~for luminol~~.

18. (Currently Amended) A The kit according to ~~of~~ claim 17 wherein the oxidant is sodium perborate or hydrogen peroxide.

19. (Currently Amended) A method ~~according to claim 1~~ substantially as hereinbefore described with reference to the Example for detecting an analyte labelled with a haem moiety within a sample, the method comprising:

- a) contacting the sample with one or more magnetic beads having immobilised thereon a specific binding partner for the analyte and allowing the analyte to bind to the specific binding partner;
- b) separating the magnetic beads from the sample;
- c) subjecting the beads to alkaline conditions sufficient to release the haem moiety from the beads; and
- d) detecting the released haem moiety using a luminol chemiluminescent assay procedure.

20. (New) The method of claim 19 wherein the haem moiety is a horseradish peroxidase labelled antibody specific for the analyte.